

CHAPTER 1

CURRENT EVENTS IN THE DEPOT MAINTENANCE ARENA

1.1 INTRODUCTION

The Defense Depot Maintenance Council (DDMC) Business Plan (DBP) is an overview of the current and planned depot maintenance program. It provides a large quantity of Service and Defense Logistics Agency (DLA) depot maintenance-related information. In this regard it gives legislators and policy makers insight into the program execution and its associated infrastructure. Through data portrayal, the DBP provides a picture of the current size of the depot maintenance business and projected effects of legislation, policy, management actions, budget decisions, and downsizing initiatives. These portrayals of budgets, workload, capacity, and personnel will serve as baselines for future depot maintenance analysis and decision making. The DBP also serves as a source of additional information on current legislation, policy, current issues, the implementation of Base Closure and Realignment Commission recommendations, and Service and DLA initiatives that will improve the efficiency and effectiveness of depot maintenance operations.

1.2 THE DEPOT MAINTENANCE ENVIRONMENT

1.2.1 Depot Maintenance Legislation

Since the publication of the last DBP, two National Defense Authorization and two Defense Appropriation acts have been signed into law. The following paragraphs recap the major provisions of those laws that apply to depot maintenance.

1.2.1.1 The National Defense Authorization Act (NDAA) for Fiscal Year 1999 (Public Law (PL) 105-261)) Depot Maintenance Provisions

1.2.1.1.1 Clarification of Definition of Depot-Level Maintenance and Repair (Sec. 341)

This section amends section 2460(a) of Title 10 United States Code (USC) by revising the first sentence of Title 10 section 2460(a). (The revision is underlined.) It now reads:

“In General – In this chapter, the term ‘depot-level maintenance and repair’ means (except as noted in subsection (b)) material maintenance or repair requiring the overhaul, upgrading or rebuilding of parts, assemblies, or subassemblies, and the testing and reclamation of equipment as necessary, regardless of the source of funds for the maintenance or repair or the location at which the maintenance or repair is performed.”

See paragraph 1.2.1.3.1 below for the complete definition of depot maintenance and repair as it was stated in the FY98 NDAA.

1.2.1.1.2 Notification of Determinations of Military Items as Being Commercial Items for Purposes of the Exception to Requirements Regarding Core Logistics Capabilities (Sec. 343)

Title 10 USC Section 2464 mandates retention of DoD Core Logistics Capabilities for maintenance and repair of weapon systems and materiel needed to fulfill the Joint Chiefs of Staff strategic and contingency plans. Three exceptions to this requirement are:

special access programs,
nuclear aircraft carriers, and
commercial items.

Under Section 2464, commercial items are defined as “commercial items that have been sold or leased in substantial quantities to the general public and are purchased without modification in the same form that they are sold in the commercial marketplace, or with minor modifications to meet Federal Government requirements.”

Section 343 of the FY99 NDAA amends Section 2464 of Title 10 USC by adding a new subsection (c) to establish notification procedures and justification requirements for military equipment or weapon systems determined to be commercial items for the purposes of the exception noted above.

In summary, Section 343 states that when applying the commercial item exception, a commercial item is to be established by the Secretary of Defense submitting to Congress a notification of the determination and the justification of the determination. The justification is to include, at a minimum:

“The estimated percentage of commonality of parts of the version of the item that is sold or leased in the commercial marketplace and the Government’s version of the item.

The value of any unique support and test equipment and tools that are necessary to support the military requirements if the item were maintained by the Government.

A comparison of the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the private sector with the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the Government.”

Subsection (c) of Section 2464 of Title 10 USC applies with respect to determinations made after the date of the enactment of the FY99 NDAA.

1.2.1.1.3 Conditions on Expansion of Functions Performed under Prime Vendor Contracts for Depot-Level Maintenance and Repair (Sec. 346)

This section of the FY99 NDAA sets conditions for expanding the use of prime vendor contracts for depot-level maintenance and repair of weapon systems and military equipment described in section 2464(a)(3) of Title 10 USC (i.e., those weapon systems for which retention of Core Logistics Capabilities is mandated). In essence, section 346 states that prime vendor contracts may not be entered into before the end of a 30 day period after the Secretary of Defense has submitted to Congress a report specific to the contract that:

- describes the competitive procedures to be used to award the prime vendor contract; and
- contains an analysis of costs and benefits that demonstrates that use of the prime vendor contract will result in savings to the Government over the life of the contract.

Under this section, a “prime vendor contract” means an innovative contract that gives a defense contractor the responsibility to manage, store, and distribute inventory, manage and provide services, or manage and perform research, on behalf of the Department of Defense on a frequent, regular basis, for users within the Department on request. The term includes contracts commonly referred to as prime vendor support contracts, flexible sustainment contracts, and direct vendor delivery contracts. The term “depot-level maintenance and repair” has the meaning given such term in section 2460 of Title 10, USC.

In terms of its relationship to other laws, nothing in section 346 is to be construed to exempt a prime vendor contract from the requirements of section 2461 of Title 10, USC, or any other provision of chapter 146 of that title.

1.2.1.1.4 Development of Plan For Establishment of Core Logistics Capabilities for Maintenance and Repair of C-17 Aircraft (Sec. 351)

This Air Force-specific section of the FY99 NDAA requires under subsection (a) that not later than March 1, 1999, the Secretary of the Air Force shall submit to Congress a plan for the establishment of the core logistics capabilities for the C-17 aircraft consistent with the requirements of section 2464 of title 10, United States Code.

Subsection (b) of Section 351 also states, in terms of the effect on the existing contract, that after March 1, 1999, the Secretary of the Air Force may not extend the Interim Contract for the C-17 Flexible Sustainment Program before the end of the 60-day period beginning on the date on which the plan required by subsection (a) is received by Congress.

Subsection (c) of Section 351 requires a Comptroller General review. Subsection (c) states that during the period specified in subsection (b), the Comptroller General shall review the plan required under subsection (a) and submit to Congress a report evaluating the merits of the plan.

1.2.1.2 FY99 Defense Appropriation Act (PL 105-262)

Section 8037 of this act extends the authority for DoD to acquire the maintenance of aircraft, vehicles and vessels, as well as the production of components and other defense articles through public-private competition during FY99. It requires that successful bids be certified to include comparable estimates of all direct and indirect costs for both public and private bids. It further provides that OMB Circular A-76 does not apply to competitions for depot maintenance workloads.

Another depot maintenance-related portion of this act is in Section 8106. This section requires the Secretary of Defense to submit to the Congressional defense committees an in-depth analysis comparing the cost of any proposed establishment or expansion of depot facilities by the Reserve Components to the cost of performing the same work at existing depot facilities or by the private sector. For purposes of this section, the term “depot level maintenance” does not include General Support Level maintenance activities, Intermediate Level maintenance activities, or lower echelon maintenance activities.

1.2.1.3 The National Defense Authorization Act (NDAA) for Fiscal Year 1998 (PL 105-85) Depot Maintenance Provisions

1.2.1.3.1 Definition of Depot-Level Maintenance and Repair (Sec. 355, para. (a))

This provision provides a revised definition of what is to be considered as depot-level maintenance and repair. This provision creates a new section (2460) in Chapter 146 of Title 10 United States Code (USC). In general, the term “depot-level maintenance and repair” means material maintenance or repair requiring the overhaul, upgrading, or rebuilding of parts, assemblies, or subassemblies, and the testing and reclamation of equipment as necessary, regardless of the source of funds for the maintenance or repair (except as noted below). The term includes:

- all aspects of software maintenance classified by the Department of Defense (DoD) as of 1 July 1995, as depot-level maintenance and repair, and
- interim contractor support (ICS) or contractor logistics support (CLS) (or any similar contractor support) to the extent that such support is for the performance of services described in the preceding definition.

Exceptions to the term are as follows:

- depot maintenance does not include the procurement of major modifications or upgrades of weapon systems that are designed to improve program performance or the nuclear refueling of an aircraft carrier. A major upgrade program covered by this exception could continue to be performed by private or public sector activities.
- depot maintenance also does not include the procurement of parts for safety modifications. However, the term does include the installation of parts for that purpose.

In sum, in addition to the repair and overhaul of items, the definition of depot-level maintenance and repair includes depot-level maintenance accomplished by ICS and CLS, software maintenance, and installation of major modifications and safety modifications. The definition specifically excludes procurement of major modifications, procurement of safety modifications, and aircraft carrier nuclear refueling.

1.2.1.3.2 Core Logistics Capabilities of Department of Defense (Sec. 356)

This portion of the Authorization Act amends Section 2464 of Title 10, USC, Core Logistics Capabilities. This section requires that the Secretary of Defense (SECDEF) identify Core logistics capabilities and workloads to maintain those capabilities. The Core logistics capabilities include those capabilities that are necessary to maintain and repair the weapon systems and other military equipment (including mission-essential weapon systems or materiel) as necessary to enable the armed forces to fulfill the strategic and contingency plans. Those Core logistics capabilities must be established not later than four years after achieving initial operational capability. Excluded are systems and equipment under special access programs, nuclear aircraft carriers, and commercial items that are identified by the Secretary, in consultation with the Chairman of the Joint Chiefs of Staff.

Core logistics capabilities is further amplified to include that which is necessary to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements.

Most significant in this section is that performance of workloads to maintain Core logistics capabilities must be performed organically, not in the private sector. DoD is required to maintain Core logistics capabilities at Government-owned and Government-operated (GOGOs) activities (including Government personnel and Government-owned and Government-operated equipment and facilities). The GOGOs are required to be assigned sufficient workload to ensure cost efficiency and technical competence in peacetime, while preserving the surge capacity and reconstitution capabilities.

The commercial items referenced above as exclusions are commercial items that have been sold or leased in substantial quantities to the general public and are

purchased without modification in the same form that they are sold in the commercial marketplace, or with minor modifications to meet Federal Government requirements.

Section 356 also extends the limitation on contracting, stating that performance of workload to support Core logistics capabilities may not be contracted for performance by non-Government personnel under the procedures and requirements of the Office of Management and Budget (OMB) Circular A-76. There is a waiver process to this limitation but only if it is determined through rigorous criteria and determination that the workload is no longer required for national defense reasons.

1.2.1.3.3 Increase In Percentage of Depot-Level Maintenance and Repair that may be Contracted for Performance by Non-Government Personnel (Sec. 357)

This section of the Authorization Act amends Section 2466(a) of Title 10, USC, by increasing the percentage of depot-level maintenance and repair that may be contracted for performance by non-Government personnel from 40 percent to 50 percent. Thus, beginning with FY98, not more than 50 percent of the funds made available to a Service or Defense Agency for depot-level maintenance may be used to contract for performance of depot maintenance by non-government personnel.

1.2.1.3.4 Annual Report on Depot-Level Maintenance and Repair (Sec. 358)

This section amended subsection (e) of section 2466 of Title 10, USC, requiring that by 1 February of each year, the SECDEF shall submit to Congress a report identifying, for each Military Department and Defense Agency, the percentage of the funds that were expended during the preceding fiscal year for performance of depot-level maintenance and repair workloads by the public and private sectors as required by section 2466. This is known as the 60/40 Report, and for FY98 it will be the 50/50 Report. Along with the reporting requirement, the Comptroller General shall submit to Congress the Comptroller General's views on whether the DoD has complied with the requirements for the fiscal year covered by the report.

1.2.1.3.5 Requirement for Use of Competitive Procedures in Contracting for Performance of Depot-Level Maintenance and Repair Workloads Formerly Performed at Closed or Realigned Military Installations. (Sec. 359)

This section amends Title 10, USC, by inserting a new section, Sec. 2469a, "Use Of Competitive Procedures in Contracting for Performance of Depot-Level Maintenance and Repair Workloads Formerly Performed At Certain Military Installations." In essence, this section presents the competitive procedures that must be adhered to for workload shifts required as a result of the 1995 Base Closure and Realignment (BRAC-95). The law applies to any depot-level maintenance and repair workload performed as of 1 January 1997, and is proposed to be converted from performance by DoD personnel to performance by a private sector source.

This section does not apply to (1) a depot-level maintenance and repair workload that is to be consolidated to another military installation (other than a closed or realigned military installation) as a result of a base closure or realignment action or a decision made by the Service Secretary concerned or the DDMC; (2) a workload necessary to maintain a Core logistics capability identified under section 2464, or (3) any contract originally entered into before the date of the enactment of the NDAA for Fiscal Year 1998, 18 November 1997.

This section also imposes conditions for solicitation of offerers, most importantly requiring consideration of both public and private offerers. It also requires that source selection include fair market value of any provided land, plant or equipment from a military installation by a private offerer; and total direct and indirect costs and savings. Further, this law requires equal treatment of depreciation, allows for performance at any location(s), as well as teaming by both public and private entities, and forbids preference to offerers for performance of workloads in-place or any other single location.

Finally, this section, as it applies to 2469a, limits bundling of workload, requires competitive procedures with a General Accounting Office (GAO) review, and provides a process for dealing with objections from all bidders.

Section 359 also contains provisions exclusive of 2469a which require plans for specific procedures for conduct of competitions for workloads, a report on workload allocation at BRAC installations, and a GAO review and report on the Air Force's C-5 aircraft workload and workload award.

1.2.1.3.6 Clarification of Prohibition on Management of Depot Employees by Constraints on Personnel Levels. (Sec. 360)

Section 360 amends Section 2472(a) of Title 10, USC. It now states that civilian employees of the Department of Defense, including the civilian employees of the Military Departments and the Defense Agencies, who perform, or are involved in the performance of, depot-level maintenance and repair workloads may not be managed on the basis of any constraint or limitation in terms of man years, end strength, full-time equivalent positions, or maximum number of employees.

1.2.1.3.7 Centers Of Industrial And Technical Excellence (Sec. 361)

Section 361 amends Chapter 146 of Title 10, USC, by adding a new section (2474), Centers of Industrial and Technical Excellence (CITE), wherein the SECDEF is required to designate each depot-level activity of the Military Departments and the Defense Agencies (other than facilities approved for closure or major realignment under the Defense Base Closure and Realignment Act of 1990) as a CITE in the recognized Core competencies of the activity.

Under Section 2474, the Secretary shall establish a policy to encourage the Secretary of each Military Department and the head of each Defense Agency to reengineer industrial processes and adopt best-business practices at their depot-level activities in connection with their Core competency requirements, so as to serve as recognized leaders in their Core competencies throughout the DoD and in the national technology and industrial base.

Section 2474 requires the Secretary of Defense to enable CITEs to enter into public-private cooperative arrangements for the performance of depot-level maintenance and repair at CITEs. The SECDEF is also to encourage the use of such arrangements to maximize the utilization of the capacity at such centers. Under this legislation, amounts received by a CITE for work performed under a public-private partnership shall be credited to the appropriation or fund, including a working-capital fund, that incurs the cost of performing the work.

Finally, Section 2474 requires that policy shall include measures to enable a private sector entity that enters into a partnership arrangement or leases excess equipment and facilities at a CITE, to perform additional work at the CITE outside of the types of work normally assigned to the CITE, subject to the limitations of law.

1.2.1.3.8 Extension of Authority for Aviation Depots and Naval Shipyards to Engage in Defense-Related Production and Services. (Sec. 362)

This section extends the authority of these activities to engage in defense-related production and services through 30 September 1999.

1.2.1.3.9 Other Related Depot Maintenance Actions from the FY98 NDAA

Section 364 of the FY98 NDAA prohibits reductions in force at Army depots, except to implement BRAC at Letterkenny and Red River Army Depots, until the Army Workload and Performance Measurement System (AWPS) is certified fully operational.

Section 366 requires the GAO to review and report on the Navy's practice of using protracted temporary duty assignments of naval shipyard personnel to perform maintenance and repair at home ports.

Section 367 provides a sense of Congress that it expects the DoD to implement the "20/40/40" (percentages) plan for the transfer of ground communication-electronic (GCE) workload from Sacramento Air Logistics Center to Tobyhanna Army Depot in 1998, 1999, and 2000, respectively.

1.2.1.3.10 Reporting Requirements

The FY98 NDAA language requires that several reports be submitted to Congress. These include:

- Section 358, Annual Report on Depot-Level Maintenance, due 1 February of each year: this report is to provide the percentage of funds expended in the preceding fiscal year for performance of depot-level maintenance and repair workloads by public and private sectors.

- Section 359 has several reporting requirements. It requires that the SECDEF provide, for contracts for multiple workloads, from BRAC-affected installations, a justification why those workloads cannot be performed without being combined. This report would be due 60 days before solicitation to offerers. Section 359 also requires those specific procedures for the conduct of public-private competitions for these workloads are provided to Congress. The due date for a report would be at least 30 days before first solicitation. Finally, Section 359 requires the SECDEF to report on the allocation of workload at BRAC-affected depots before any solicitation occurs. This workload allocation report must include Core logistics functions, transfers to other installations, proposed public-private competitions, workload no longer needed, implementation of allocation and the anticipated capacity utilization.

- Section 361, Centers of Industrial and Technical Excellence, due on 1 March 1999: requires the SECDEF to submit its policies to implement CITEs, and identify any public-private partnerships, details of leases entered into for dual use purposes, and the effect of partnerships and leases on capacity utilization, depot rate structures and readiness.

- Section 364 is an Army-specific requirement which requires the Secretary of the Army to certify that the Army Workload and Performance System is fully operational before implementing any reductions in force (except to implement BRAC).

- Section 365 requires that the SECDEF report on the allocation among facilities of DoD and private sector of logistics activities to maintain and repair weapon systems and equipment. The report is due 31 May 1998. The report is to include that which is accomplished at GOGOs with DoD personnel and equipment, at government-owned facilities whether government operated or contractor operated and at private sector facilities.

1.2.1.4 FY98 Defense Appropriation Act (PL 105-56)

Section 8039 of this act extends the authority for DoD to acquire the maintenance of aircraft, vehicles and vessels, as well as the production of components and other defense articles through public-private competition during FY98. It requires that successful bids be certified to include comparable estimates of all direct and indirect costs

for both public and private bids. It further provides that OMB Circular A-76 does not apply to competitions for depot maintenance workloads.

1.2.2 Current Issues and Policy in Depot Maintenance

1.2.2.1 Effective Use of Public and Private Sector Capabilities

The 1998 *DoD Logistic Strategic Plan*, 7 January 1998, delineates several depot maintenance-specific policies that emphasize making optimum use of the total industrial base supporting depot-level maintenance.

The plan calls for the total maintenance infrastructure to be restructured over time. Office of the Secretary of Defense (OSD) policy is to pursue opportunities for eliminating public sector maintenance infrastructure through increased competitive sourcing, greater consolidation, aggressive re-engineering, and expanded regionalization of activities across levels of maintenance, as well as across Service lines. The plan also calls for the discontinuance of transfers of workloads from the private sector to the public sector except where required for reasons of national security. Limiting investments in new equipment and major and minor military construction to only that required to comply with statute would also reduce infrastructure.

DoD will pursue efficient use of public sector maintenance depots through improved capacity utilization. To achieve this, public sector capacities will be downsized in line with increased private sector material support, reduced cycle times and reduced inventory storage points.

The 1998 *DoD Logistic Strategic Plan* states that the DoD will pursue public-private competitions for depot-level maintenance and repair workloads accomplished by Federal Government personnel to the maximum extent allowed by statute. The policy then is for the Services to use competition to achieve the most effective use of both sectors for the accomplishment of workloads, but do so within the statutory levels established by Section 2466 of Title 10 USC.

A key competition policy document is the 2 May 97 memorandum from the Under Secretary of Defense for Acquisition and Technology (USD (A&T)). The policy states that organic DoD maintenance depots are eligible to participate in public-private competitions for depot-level workloads not necessary to sustain Core capabilities. Market analysis is required for competitions, and the provisions of Title 10 2466 (50/50) and 2469 (\$3M) apply. The competition policy also requires Military Departments to ensure the source selection authority (SSA) and the contracting organization have an "arms length" relationship with competing depots, that the Government communicates equally with all offerers, that customers have opportunity to participate, and that there is a process for internal resolution of issues raised by public depots. The SSA must also consider past performance and non-recurring costs of changing the source of repair (SOR). The competition must ensure that maximum cost comparability of proposals is included and that public depots must have well documented accounting procedures for

direct and indirect costs. These procedures must be auditable by the Defense Contract Audit Administration (DCAA). Also, any cost estimating systems must be acceptable to the DCAA.

In addition to public-private competition for organic workloads not needed to sustain Core, DoD policy also calls for maximum competition for maintenance workloads previously awarded without full and open competition.

On 3 February 1998, the USD (A&T) issued a policy memorandum to bring into effect the provisions of the FY98 NDAA pertaining to public-private competitions for depot-level workloads currently being performed at facilities closed or realigned as a result of BRAC-95 decisions (see paragraph 1.2.1.1.5). Highlights of the policy include:

- the Secretary of Defense must certify to Congress that workloads cannot be performed without being combined (commonly referred to as bundling)
- solicitation(s) must permit both public and private offerers
- the source selection authority (SSA) cannot have a direct management involvement with any competing depot
- the contracting organization must have an “arms length relationship” with all competing depots
- customers are to be given an opportunity to participate in source selection considerations
- competitions shall attain maximal cost comparability, consider cost elements in the A-76 Handbook, and apply cost evaluation methods as contained in the 2 May 1997 USD (A&T) competition policy memo
- past performance information must be an award factor
- each Military Department will establish cost comparability procedures and ensure development of guidelines regarding transition costs from one depot source of repair to another
- source selection must consider the fair market value of any property of a military installation that a private offerer proposes to use
- total DoD’s direct and indirect costs will be considered as well as total direct and indirect savings
- both sectors will treat depreciation identically

- no preferential treatment for a nay bidder due to proposed performance of work in any specific location
- depots will have well-documented accounting procedures and submit them to DCAA for audit
- each Military Department shall make arrangements for periodic DCAA review of its depots' cost estimating and accounting systems
- the DDMC will ensure that each Military Department's depots' cost estimating and accounting systems are acceptable to DCAA, and that compliance is achieved in a timely manner
- both public and private bidders may object to solicitations/awards; for public protests, the contracting officer makes the decision; and appeals go to the USD (A&T).

1.2.2.2 Contracting for Total Logistics Support of New Weapon Systems

The DoD 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information Systems*, states that it is DoD policy to retain capabilities to provide effective and timely response to surge demands, ensure competitive capabilities, and sustain institutional expertise. Support concepts for new and modified systems shall maximize the use of contractor-provided, long-term, total life-cycle logistics support that combines depot-level maintenance for non-Core-related workload along with wholesale and selected retail materiel management functions. Best value over the life-cycle of the weapon system and use of existing contractor capabilities, particularly while the system is in production, shall be key determinants in the overall decision process. The program managers shall provide for long-term access to data required for competitive sourcing of systems support throughout its life cycle.

1.2.2.3 Modernizing Data Systems and Information Management Systems

In 1997, a decision was made to alter the approach to modernization of data systems and information management systems specific to depot maintenance. Modernization's primary focus was and continues to be interoperability. The approach had been to establish interoperability among the Services by developing a suite of depot maintenance standard systems. Rapid changes in commercial information technology have made possible the interoperability across systems by linking disparate legacy systems of the Services with integration software making the standard system approach unnecessary. The requirement for a suite of standard depot maintenance systems was replaced by the Services' requirement to have a single system of standards.

The Joint Logistics Systems Center (JLSC) will be disestablished and no longer be an application developer and integrator. JLSC-developed systems will transition to the Services who will have the responsibility to integrate those systems with their legacy

systems and support Service-to-Service interoperability. This approach is called the "Service-Lead" approach. The transition is scheduled to be accomplished by the end of FY98.

The Service-Lead approach provides the elements of the JLSC-built systems to the Services through Program Management Responsibility Transfer (PMRT). The intent is to transfer healthy projects to the lead Services with appropriate resources, proper oversight, and continued customer support. The responsible lead Services for JLSC-developed systems are committed to providing the support to using Services.

OSD and the DDMC have decided to monitor the transfer to the Services of the JLSC-built systems and other related initiatives surrounding depot maintenance data systems and information management. The DDMC has agreed to continue monitoring the transfers and receive "insight" rather than provide "oversight" to the process.

1.2.2.3.1 Transition Implementation

Originally, management of four depot maintenance software applications developed by the JLSC were to transition to the Air Force: the Enterprise Information System (EIS), the Interservice Material Accounting and Control System (IMACS), the Depot Maintenance--Hazardous Material Management System (DM-HMMS) and the Programmed Depot Maintenance Scheduling System (PDMSS). The latter has been deployed across all Service depots and shipyards. DM-HMMS is planned for use at Army, Air Force and Marine Corps depots. Navy does not plan to use it. With the exception of NAVSEA, all Service depots plan to use IMACS. As of December 1997, continuation of the EIS project was terminated by DUSD(L) with the provisions that only the need for Marine Corps local capability was to be accommodated and any residual resources should be offered to the EIS customers before final disposition.

The Navy will be responsible for support of the following depot maintenance applications developed by the JLSC: Baseline Advanced Industrial Management (BAIM), Facilities and Equipment Maintenance (FEM), Tool Inventory Management (TIMA), Laboratory Information Management System (LIMS), and Manufacturing Resource Planning Commercial Off-the-Shelf (MRP II COTS). BAIM has been successfully implemented throughout NAVSEA naval shipyards. Effort is now underway to implement BAIM at NAVAIR depots, commencing with Naval Aviation Depot Jacksonville. All Services intend to use TIMA and FEM, and all but the Marine Corps will use LIMS.

Within the Navy, NAVAIR is evaluating the deployment of the full JLSC-developed suite of depot maintenance systems. The other Services are participating in the evaluations.

1.2.2.3.2 Manufacturing Resource Planning (MRP II) Commercial-Off-The-Shelf (COTS)

The MRP II COTS project is an integrated set of software packages that provides Manufacturing Resource Planning capability to support repair, remanufacturing, and manufacturing for overhaul of depot commodity workloads. Western Data Systems (WDS) is the MRP II COTS contractor. Seven depot sites are proceeding with implementation and evaluation of the MRP II COTS system. Provisions have been made for additional implementations if the system meets user requirements. The DDMC will continue to monitor the evaluation of the implementations and their success or failure to meet user needs. The DDMC agreed that ACAT III is the appropriate level of acquisition management for the MRP II COTS effort.

The MRP II COTS planned end-state does not mean that the Services have made a firm commitment to use MRP II COTS. The Army is proceeding with evaluating the modernization of its legacy system (Standard Depot System) to support its requirement for reparable management.

1.2.2.3.3 Financial Systems

Linkage of depot maintenance systems with the financial systems is an important consideration. At present the Services are evaluating financial management information systems. Being considered by the Air Force, Navy, and Marine Corps is the Defense Integrated Financial Management System (DIFMS) which, in its end state, would be a restructured version of the Navy Integrated Financial Management System (NIFMS). The Army is planning to continue with the Standard Industrial Fund System / Automated Time and Attendance Production System (SIFS/ATAAPS) for its financial management requirements.

1.3 BASE CLOSURE AND REALIGNMENT (BRAC) STATUS

Implementation of BRAC recommendations has been a central means of continuing DoD's efforts to reduce the size of the depot maintenance infrastructure since 1988. BRAC actions have assisted in better aligning the depot infrastructure to meet force structure requirements. This section provides the status of BRAC closures and realignments relating to depot maintenance activities since the publication of the FY96-01 DDMC Business Plan. (Those reported as completed in the last business plan are not repeated here.) It also highlights principal workload moves, when possible, for BRAC-95 affected depots and shipyards. Statutory authority for the BRAC process expired with the conclusion of BRAC-95.

Base realignment and closure rounds in 1988, 1991, 1993 and 1995 have resulted in decisions to close or realign a significant number of major depot maintenance activities as depicted in Table 1-1.

Table 1-1
Major Depot Maintenance Closures and Realignments as a Result of BRAC

<u>1988</u>	<u>1991</u>
Lexington Army Depot - Close Pueblo Army Depot - Realign	Sacramento Army Depot - Close Philadelphia Naval Shipyard - Close Letterkenny Army Depot - Realign
<u>1993</u>	<u>1995</u>
Naval Aviation Depot Alameda - Close Naval Aviation Depot Norfolk - Close Naval Aviation Depot Pensacola - Close Charleston Naval Shipyard - Close Mare Island Naval Shipyard - Close Aerospace Guidance and Metrology Center - Close Letterkenny Army Depot - Realign Tooele Army Depot - Realign	Sacramento Air Logistics Center - Close San Antonio Air Logistics Center - Close Naval Surface Warfare Center Crane Division, Louisville Detachment - Close Naval Undersea Warfare Center, Keyport - Realign Long Beach Naval Shipyard - Close Letterkenny Army Depot - Realign Red River Army Depot - Realign

1.3.1 Army

1.3.1.1 Letterkenny Army Depot (LEAD) Realignment

BRAC-95 directed that LEAD be realigned, with all towed and self-propelled artillery going to Anniston Army Depot (ANAD) and the DoD missile guidance workload going to Tobyhanna Army Depot (TYAD) or the private sector. LEAD is to retain an enclave for conventional ammunition storage and tactical missile disassembly and storage.

It has been determined that the tactical missile guidance and control workload will be transferred to TYAD, and implementation is underway. Towed and self-propelled artillery, with the exception of the M109A6 Paladin production program, have been transferred to ANAD. The Paladin production program will remain at LEAD into FY99.

1.3.1.2 Red River Army Depot (RRAD) Realignment

BRAC-95 directed that RRAD be realigned, with all maintenance missions, except for those relating to the Bradley Fighting Vehicle System (BFVS), moving to other depot maintenance activities; including the private sector. RRAD will retain conventional ammunition storage, its rubber production facility, and its intern and training facilities.

The Army has determined that maintenance on the Multiple Launch Rocket System (MLRS) launcher and vehicle is related to the BFVS within the meaning of BRAC-95 recommendations; so it, along with the BFVS workload, will remain at RRAD.

BRAC-95 directed the transfer of all other RRAD workload to other depot activities, including the private sector. The M113 family and the M9 Armored Combat Earthmover (M9 ACE), which support Army Core capability, moved to ANAD. The AH-64 Apache armament subsystem, also Core, moved to Corpus Christi Army Depot (CCAD). Shop equipment workload moved to Rock Island Arsenal (RIA). The non-Core armament subsystem for the AH-1 Cobra helicopter was competitively awarded to private industry.

1.3.2 Navy

1.3.2.1 Naval Undersea Warfare Center (NUWC) Division Keyport

All BRAC-95 depot realignment actions have been completed at NUWC Keyport. Associated equipment, personnel, process information and workload have been realigned to Puget Sound Naval Shipyard. A total of 26 billets were transferred to PSNSY from NUWC Keyport. PSNSY and NUWC Keyport agreed that these billets encompassed the workload covered by the BRAC-95 decision. The transfer was completed in October 1996. The workload transferred includes combat system refurbishment, sheetmetal, heat treat, machining, and welding.

1.3.3 Air Force

1.3.3.1 San Antonio Air Logistics Center (SA-ALC)

SA-ALC, at Kelly AFB, TX, was directed to be closed through realignment by the implementation of BRAC-95. The Nuclear Weapons (NW) move from SA-ALC to Ogden Air Logistics Center (OO-ALC) was completed in December 1998 and involved construction projects for Building 845 and Building 1229 at OO-ALC. A proposal for the Gas Turbine Engine (GTE) Military Construction (MILCON) is pending contract award. The F100 Core engine workload move to Oklahoma City Air Logistics Center (OC-ALC) is on schedule with completion by 1 May 1999.

The Air Force issued a Request for Proposal (RFP) for public/private competition of the propulsion workload at SA-ALC on 30 March 1998. The propulsion workload includes repair operations for the TF39, T56, and F100 non-Core engines, repair operations for fuel accessories, two-level maintenance for T56 engines, and two-level maintenance for TF39 engines. The competition will be awarded within the limitations of 10 USC 2466 and in accordance with "best value." The Air Force will award the propulsion workload as a requirements contract with an initial ordering period of seven years; however, that period can be reduced to five years after completion of the workload transition period or extended up to fifteen years based on performance. Propulsion contract award is currently scheduled for February 1999.

Finally, the Air Force has already performed a public/private competition on the C-5 aircraft at SA-ALC. The workload was awarded to Warner Robins Air Logistics Center (WR-ALC) in October 1997. WR-ALC completed transition of that workload from SA-ALC in August 1998.

1.3.3.2 Sacramento Air Logistics Center (SM-ALC)

SM-ALC, at McClellan AFB, CA, was also directed to be closed as a result of BRAC-95. Air Force tenant organizations at McClellan AFB are being moved off the base, and the depot maintenance workloads are being contracted out, privatized or moved to other DoD depots. Disposition of important facilities and workloads is continuing. Highlights of the actions are noted below.

As directed by the BRAC-95, the "common use" ground communications-electronics (GCE) mission at SM-ALC will be transferred to Tobyhanna Army Depot (TYAD). A joint Army/Air Force team is accomplishing the GCE workload transfer. The move, which is planned to be completed by the end of FY2000, is currently on schedule. A strategy to transition 20% of the workload to TYAD in FY1998, 40% in FY1999, and the remaining 40% in FY2000 was approved by the DDMC in March 1997. This strategy was incorporated into the GCE Transition Plan, which received final approval on 11 August 1998. The joint Army/Air Force transition team is in the process of accomplishing the FY1999 transfers and developing a timeline for transferring the final portion of the GCE workload in FY2000.

The F-15 workload transition from SM-ALC to WR-ALC was completed 5 August 1998. WR-ALC is currently the primary source of repair (SOR) for the F-15.

As directed by the BRAC, the McClellan Nuclear Radiation Center (MNRC) was to be made available for dual-use and/or research or to be closed. On 12 August 1998, acting Secretary of the Air Force designated the MNRC as a participating industrial facility per Title 10 USC Section 2553. This allows MNRC to sell services to non-DoD customers. The President stated on 15 November 1997 that the DoD would retain liability for the shutdown of the MNRC. AFMC has stated that the Air Force will continue to support MNRC after 2001 as a user/customer, but not as an operator/maintainer.

The Air Force awarded, through public/private competition, the consolidated workload package at SM-ALC to OO-ALC on 9 October 1998. OO-ALC is the lead entity in a teaming arrangement with a private contractor. This competition award was within the limitations of 10 USC 2466 and in accordance with "best value." The consolidated workload includes the KC-135, A-10, hydraulics, electrical accessories, instruments and manufacturing. The award is a requirements type contract that covers a transition period, a five-year basic ordering period, and up to three additional ordering years based on performance. OO-ALC has begun preparing for transition of the workload; however, the process may be affected by a lawsuit filed by a private corporation against the Air Force concerning award of the consolidated workload.

The Castings Emissions Reduction Program, begun in 1994, will be completed and turned over to Sacramento County in the year 2000 as part of the McClellan reuse plan. The program was a five-year, \$50 million joint research project of the DoD and American automakers. The goal of the project is to design an environmentally friendly plant that can make iron and aluminum parts for business or the military.

The micro-electronics facility at SM-ALC was transferred to the Defense Logistics Agency on 1 April 1997 and is now called the Defense Micro-Electronics Activity (DMEA). DMEA assists weapon systems managers, and managers of other operational or developmental systems, in inserting advanced micro-electronics technologies, and provides studies and analysis relative to existing or future obsolescence problems. The DMEA also is the DoD Executive Agent for micro-electronics diminishing manufacturing sources.

1.4 SERVICE MANAGEMENT INITIATIVES

The Services are continuing in their efforts to increase the efficiency and effectiveness of depot operations and the overall management of the logistics infrastructure. These efforts are essential to the implementation of legislation and policy as well as maintaining the viability of the organic depot infrastructure.

1.4.1 Army

1.4.1.1 Velocity Management (VM)

In order to reduce operating costs, the Army logistics community is achieving significant operating efficiencies through the VM program. Dollars saved by these more efficient operations will help pay for other critical Army needs. VM has four major components: order ship time (OST), repair cycle time (RCT), stockage determination and financial management. Each of these components can save significant resources and speed logistics response time.

The Army has achieved a 45 percent reduction in OST since FY94. Over the past 3 years, OST has been reduced from 33.5 days to 18.7 days, and further OST reductions are expected in FY98.

It is important for maintainers at all levels to reduce RCT. The Army has made progress in this area by reducing "awaiting parts" times at the various maintenance levels. With reduced OST, the majority of RCT reduction must now come through a more intense focus in component repair activities. In doing so, Army objectives are to:

- improve the speed and quality of the diagnosis/fault identification process,
- order the right parts,

- rapidly and directly retrograde unserviceable components to the repair location,
- rapidly pick-up or redistribute the repaired component upon completion of final inspection checks,
- ensure contract language that buys "performance" and not just level-of-effort work years.

Improved RCT will also reduce the Army's overall investment by offsetting additional procurement of high-cost spares and components as those "downtime" investments are cut.

As the Army capitalizes on reduced OST and fosters the development of confidence in the repair system, it will be able to generate a positive affect on stockage determination by reducing authorized stockage lists (ASLs) and prescribed load lists (PLLs). This will assist in operating with substantially fewer resources while generating less excess during FY98.

Finally, the Army plans to continue the VM program in FY99 by pursuing the following goals:

- effecting policy changes to create more predictable and consistent credits
- establishing logistics and financial management policies that promote more cost-effective behavior
- continuing analysis of unit reconciliation process
- exploring cost drivers of the logistics financial management process
- assessing the utility of the private sector initiatives.

1.4.1.2 Army's Business Process Improvement Initiatives

In addition to the Velocity Management initiative, the Army is working to improve its business processes. These efforts are enumerated below.

- **Earned Value Project Management.** The Army is instituting Earned Value Project Management and it will encompass the entire scope of the maintenance process from strategic planning through program closeout. The goal is to increase confidence in plans, projections, forecasts, and execution data.
- **Material Management Initiative (Parts and Supplies).** This effort will streamline and standardize the process from the initial identification of the

need for a part to the time that part is received. The primary focus is on reduction of turnaround time while meeting customer schedule, cost and quality requirements.

- Installation Supply Activity (ISA) Reduction. This initiative will significantly reduce installation supply inventories and the DLA charges to the Army. There will be an increased reliance on the wholesale system for the receipt of supplies directly to the depot to reduce the number of DLA receipt and issue charges.
- Fleet Assistance, Support and Technology Transfer. This effort involves a team of technical personnel travelling to installations to transfer good ideas and improve maintenance processes.
- Quality Control Data System (QCDS). This system would replace the Maintenance Inspection Data Analysis System (MIDAS). The QCDS will be more user friendly and eliminate the inspectors use of hard copies of defect characteristics, item description codes, work center tables, etc. Any depot with PDMSS can use this system by establishing appropriate databases. The goal is to shorten the data entry time and relieve frustration for the inspectors.
- Activity Based Costing Acquisition. This business process will improve the acquisition process for parts to support maintenance programs. Acquisition may be through local procurement, national inventory control point (NICP), through credit card purchase, or Automated Storage and Retrieval System (ASRS) delivery of non-bulk material.
- Contractor Performance Certification Program (CP2). Depots, in conjunction with their participation in the CP2, have moved toward an ISO 9000 based Quality Management System (QMS). This effort aligns the depots with the commercial sector quality thrusts.
- Data Collection System. The Army is in the second year of a multi-year effort to provide Army maintenance depots with a state-of-the-art electronic Data Collection System. The system is being contractor-developed as a front-end, bar-coded input, web-based system that will support either legacy or commercial systems.
- Depot Logistics Business Systems Modernization. The Standard Depot System will be technically updated to replace government-developed databases and user interfaces with modern relational databases and graphical user interfaces. This will provide immediate benefits to users and facilitate incorporation of commercially developed software into future systems at the depots. Longer range, the Army Materiel Command

(AMC) Wholesale Logistics Management System initiative will modernize the wholesale logistics processes and associated information technology.

1.4.2 Navy

1.4.2.1 Integrated Maintenance Concept (IMC)

IMC is designed to refocus the Navy's aviation maintenance program on failure prevention rather than discrepancy correction to reduce the cost of life-cycle support and improve overall material condition of Naval aircraft. This is a major shift in maintenance policy from the lengthy and costly Standard Depot Level Maintenance (SDLM) program. IMC is a Reliability Centered Maintenance (RCM)-based, scheduled maintenance program with an increased level of field service inspection at the aircraft operational sites. (RCM is an analytical process used to determine preventive maintenance (PM) requirements for a physical asset in its operating environment. A life-cycle process, RCM ensures that the PM requirements are based on the failure characteristics of the equipment; thus, only applicable and effective tasks are used to prevent failures. If an appropriate task does not exist, no PM will be performed and the equipment will be redesigned to eliminate the failure mode if the failure is of a safety consequence. As the equipment experiences changes (changes in mission, modifications, etc.), RCM will adjust the system's PM requirements.) It is the application of RCM and Age Exploration (AGE) procedures to determine frequency and location for the most cost effective maintenance process. The focus is bringing the appropriate skill to the aircraft and reducing costs by deleting unnecessary tasks, reducing administrative tasks, and eliminating custody change inspections.

Using IMC, Naval Air Systems Command (NAVAIR) designs preventative maintenance programs tailored to address individual product needs. Significant reductions in cost and out-of-service time are expected as a result of this program. The largest and most concerted effort has been the design and development of an IMC program for the F/A-18, E-2C, S-3 and H-60 aircraft. NAVAIR will extend its IMC effort to the C-130, H-53, EA-6B, AH-1, and H-46 and continue until the year 2003.

1.4.2.2 Direct Vendor Delivery (DVD)

DVD is a logistics support technique that reduces the cost of inventory management and physical distribution functions. DVD vendors are obligated to deliver material directly to a customer just in time to meet the customer's need. This vendor-to-customer delivery eliminates expensive government-owned inventory that requires extensive storage and further shipping and handling costs.

1.4.2.3 Virtual Prime Vendor (VPV)

VPV is the next generation of prime vendor parts support. The concept relies on prime vendor(s) furnishing total logistics support to Service depot maintenance facility

customers. It also provides prime vendor access to DLA procurement instruments and supply sources such as organic manufacturing, electronic catalogs, and existing stock.

1.4.2.4 Regional Maintenance

With the shrinking defense budget and overall downsizing of the military, the Navy has had to review its existing infrastructure, and find new ways of "doing more with less." A big part of this internal examination was the existing maintenance support base, or how the Navy was conducting equipment and system maintenance at both the intermediate and depot levels. Through Regional Maintenance, the Navy is in the process of implementing a fundamental restructuring and consolidation of its ashore maintenance capabilities and capacities. In 1994, the CNO chartered the Maintenance Support Quality Management Board (MSQMB) to develop a Regional Maintenance Plan which would feature a single maintenance management process, standardize and enhance the Battle Force Intermediate Maintenance capability afloat and adopt a Regional Maintenance support strategy for all maintenance ashore. The idea was to investigate each region in the U.S., and find areas where maintenance support duplication and redundancy existed, both across operational platforms (aircraft, ship, submarine), and various repair levels (Intermediate Maintenance Activities (IMA), Naval Aviation Depots (NADEPs), and Shipyards). Once identified, consolidation of repair assets and functions could be explored to find the most cost efficient ways of servicing the Fleet, while still maintaining high maintenance standards.

The essence of Regional Maintenance is shared use of maintenance capacities and facilities that are right-sized and level-loaded. The objectives are to:

- eliminate excess infrastructure,
- provide customers a single, accessible, accountable provider of maintenance,
- strengthen Battle Force Intermediate Maintenance activities, and
- protect and strengthen technical authority.

The Regional Maintenance plan consists of three phases:

Phase 1 - Optimize Intermediate Level Maintenance Interoperability. This phase is basically complete.

Phase 2 - Integrate Intermediate and Depot Activities with Management by the Fleet Maintenance Officers. This phase is in progress.

Phase 3 - Conduct Fleet Maintenance Using a Single Maintenance Process. Target completion is in the FY 2000/2001 time frame.

Eight Regional Maintenance Centers have been established to coordinate ship maintenance within the regions. Numerous Phase 2 limited scope programs have been on going in each region for over a year, e.g., consolidation of motor rewind resources. Quantifiable savings and infrastructure have been demonstrated.

The first complete regional Depot and Intermediate consolidation and integration is being conducted at Pearl Harbor as a Pilot Program. Pearl Harbor Naval Shipyard and Naval Intermediate Maintenance Facility, Pearl Harbor, were consolidated into a single command on 30 April 1998, Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY and IMF). On 1 October 1998, the depot portion of the activity will shift from Navy Working Capital Fund to Mission Funding. At that time claimancy will be transferred from NAVSEA to CINCPACFLT, with NAVSEA functioning as operating agent. A pilot test plan, with assessment metrics, has been under review by a Navy/OSD Working Group. Once approved, DoDIG and the Navy Audit Service will monitor the plan for one year (FY99). The Conference Report on the FY 1998 DoD Appropriation Bill directed that Congress approve the pilot, requires the Navy report on the "findings" no earlier than 1 April 1999, and directs that the pilot not be expanded to other regions until six months following the report to Congress.

Norfolk Naval Shipyard (NNSY) also has been a key player in the Regional Maintenance initiative from the beginning, and will continue to play a major role in the future. The shipyard took the lead in this new maintenance concept with the establishment of the Motor Rewind Regional Repair Center (RRC) in 1994. It was the first RRC in the nation, and resulted in the consolidation of 13 Motor Shops in the Mid-Atlantic Region into one facility at the shipyard. The Mid-Atlantic Region extends from the Philadelphia Foundry in the North to the Marine Corps Air Station at Cherry Point in the South, and contains the most extensive maintenance support infrastructure in the Navy. Combining military and civilian personnel, working side by side, the Motor Rewind RRC has demonstrated the viability of the RRC process by becoming an outstanding repair facility recognized for its excellence not only in the region, but throughout the Department of the Navy. It has also been very beneficial to the shipyard by bringing in IMA level work not normally assigned, and rejuvenating a capability that was almost disestablished. Far from being a threat to the civilian work force, it has become a stabilizing medium; not only making the civilian work force stronger, but also making use of equipment and facilities that were basically idle.

An added benefit of Regional Maintenance, and one very important to the Fleet, was the training aspect associated with the operation. The sailors attached to the RRC are able to work and learn the trade from shipyard artisans who have a wealth of personal and professional experience. The Navy is the ultimate beneficiary when the sailor leaves the RRC, since he or she will take this experience back to the Fleet, where it will be critical to the success of the forward deployed Battle Force IMA initiative. The Navy has also recognized the resulting increase in qualification levels of military personnel. There is now an initiative to bring more sailor-training opportunities and programs into the shipyard to take advantage of NNSY's trade skill programs. From the sailors and civilians on the shop floor to both military and civilian management, this has been a highly successful marriage of personnel resources. It has also resulted in significant savings in facilities eliminated elsewhere utilizing NNSY's large shops.

1.4.2.5 Guaranteed Mandays

Prior to 1996, naval shipyards experienced significant negative operating results. This performance was in part due to customer decisions not to fund as much work during execution as had been planned in both shipyard and customer budgets. Implementation of OPNAV Instruction 7130.8 provided guidance for the execution of program funds at naval shipyards. The procedures have strengthened the communication between the shipyard activity group and the prime customers (Fleets and Systems Commanders) to minimize losses due to lost workload. The naval shipyards have operated with a positive NOR the past three years due in part to the success of this program.

1.4.2.6 NAVSEA Strategic Planning and Organizational Initiatives

To meet its customers' changing needs, NAVSEA continually updates its philosophy, skillbase, alliances, and culture through an ongoing strategic planning process. This brings customers and stakeholders into every stage of planning. It also provides the basis to track emerging issues, continuously evaluate its strategic planning initiatives, make mid-course corrections, and build a corporate culture devoted to constant improvement.

NAVSEA and the naval shipyards have maintained a strategic plan to establish and deploy the vision, goals, strategies and objectives for shipyard operations and improvement to the yards' customers and stakeholders. Strategies and supporting tactical objectives were established in the areas of people, customer focus and communications, total ownership cost, safety and environment, business processes, and quality and technical excellence. Primary focuses include the integrating of the inter-shipyard infrastructure with regional maintenance, and addressing work force demographic issues. Individual shipyard strategic plans, as well as other corporate functional plans, will be guided by and aligned to this plan.

At NAVSEA Headquarters, an organizational realignment was implemented to merge the Fleet Logistics Support Directorate with the Naval Shipyard and Supervisors of Shipbuilding, Conversion and Repair (SUPSHIP) and Field Activity Support Directorate. The primary objective of the merger is to better serve fleet customers. The benefits of the merger include providing fleet and PEO customers with "one stop NAVSEA shopping" for logistics and maintenance processes. It also improves and standardizes ship logistics and maintenance policies and processes. As the new organization solidifies, other efficiencies will be realized as redundant AIS and databases are eliminated.

The Supervisors of Shipbuilding, Conversion and Repair Strategic Plan supports the NAVSEA Strategic Plan and sets strategic and tactical objectives to implement improvements within the SUPSHIP community. Each of the strategic and tactical objectives is validated annually and progress is reported on a regular basis. The Supervisors are currently focusing on objectives that will: assist in formulation of new

concepts in fleet maintenance support; improve efficiency and productivity through personnel training and expanded development of automated information systems; explore contracting strategies which embrace acquisition reform initiatives; and enhance communications both with external customers and within the SUPSHIP community.

The NAVSEA Strategic Plan provides the vision and guiding principles for change in its dual roles of building ships and systems for tomorrow's Navy and supporting the fleet of today. The plan's immediate results will be actions on eight initiatives. All eight initiatives have an impact on depot maintenance performance. For example, separate teams were formed to address elimination of cumbersome work practices, improvement of planning and execution of availabilities, and ways to significantly reduce cycle time of the Fleet Modernization Program.

1.4.2.6.1 Ship Availability Planning Centers (SHAPEC)

The purpose of Ship Availability Planning Centers is to centralize and assign ship availability planning product responsibility, by ship class, to a single activity based on ship class expertise, cost performance, and encompassing planning yard assignments and including maintenance and repair planning. SHAPEC is a natural extension of the Navy's Regional Maintenance initiative, focusing on consolidation of engineering and planning resources. Centralization or single-siting of depot and intermediate engineering and planning by ship class will result in efficient use of personnel and provide for sustaining the institutional expertise necessary to maintain the Navy's complex weapons platforms. The goal is to provide reusable planning products, at reduced cost, to public shipyards, private shipyards, and intermediate maintenance activities. The Joint Continuous Acquisition and Life-Cycle Support (JCALS) architecture with its associated hardware and software will be relied on for electronic connectivity to move engineering and planning documents to execution activities.

Process reengineering is well underway with multiple pilot projects that will demonstrate process changes and capture cost/benefit data. Realignment of functions by ship class has been initiated for seven ship classes. Realignment and combining of depot and intermediate maintenance has been initiated in three regions. Establishment of automated information requirements and review of existing and planned systems is also underway.

1.4.2.6.2 Joint Industry Navy Improvement Initiative (JINII)

The Joint Industry-Navy Improvement Initiative continues as a forum for Navy and shipbuilding/ship repair industry representatives to improve business and technical processes involved in the repair and construction of Navy ships. The objectives of JINII are to:

- improve the processes used in the procurement, administration, and execution of ship construction and repair contracts,

- eliminate non-value-added requirements,
- improve communications between NAVSEA and its ship construction and ship repair contractors, and
- improve the quality, timeliness, and cost of ship construction and repair.

The JINII initiatives submitted thus far include items related to contracting, quality assurance, material procurement, environment controls, as well as specific technical recommendations associated with repair and fabrication of Navy ships. A JINII home page on the World Wide Web has been established to facilitate ready access to JINII. The home page is (<http://www.navsea.navy.mil/jinii/toc.html>).

1.4.3 Air Force

To deal with new challenges and pressures for a more cost effective and efficient logistics system, the Air Force logistics community has developed a proactive response to significantly improve its logistics business. This effort is called Agile Logistics. Agile Logistics is an Air Force program that includes a number of complementary initiatives, all focused toward improving operational capability by integrating and applying state-of-the-art business practices across all logistics functions and processes. The objective of Agile Logistics is to "maximize operational capability by using high velocity, just-in-time processes to manage mission and logistics uncertainty in-lieu of large inventory levels--resulting in shorter cycle times, reduced inventories and cost, and a smaller mobility footprint."

The key tenets of Agile Logistics are:

- allowing using command control where customer mission requirements drive the replenishment process (repair and supply); and tightening the repair and manufacturing processes to minimize queue time and increasing responsiveness to customer mission requirements;
- developing innovations in contracting, requiring contractors to use Agile Logistics practices;
- consolidating inventory by establishment of aggregated safety stocks to increase the protection for all customers,
- using fast transportation everywhere to keep assets moving and eliminating wait time.

The basic building blocks of Agile Logistics are the Repair Enhancement Programs (REPs). There are three REPs that form the foundation for Agile Logistics:

Depot Repair Enhancement Program (DREP), Contract Repair Enhancement Program (CREP), and Aircraft Repair Enhancement Program (AREP).

1.4.3.1 Depot Repair Enhancement Program (DREP)

DREP is Air Force Materiel Command's (AFMC's) standardized depot repair process that supports exchangeable item repair. DREP employs Agile Logistics tenets with repair on demand, throughput focus, dedicated parts support on the shop floor and the EXPRESS system to prioritize repairs. (EXPRESS is the Execution and Prioritization of Repair Support System. It was developed under Agile Logistics to: prioritize customer requirements for repair, analyze depot resources to accomplish prioritized repair needs, automate movement of workload to the shop, and automate distribution of serviceable assets to the customer.) Quarterly negotiation of workload has been replaced with a daily customer demand-based system. Each day the customers' demands are prioritized, and within the constraints of funding, customer requirements are satisfied according to those priorities. There are 205 depot repair shops operating under the DREP principles.

1.4.3.2 Contract Repair Enhancement Program (CREP)

A complete change in the Air Force contract repair process for components, the CREP effort is to mirror (when practical) the DREP organic repair process changes in the contract repair environment. CREP focuses on long-term arrangements with industry, measuring performance and linking data systems. Under the new process, a team composed of all the needed players is formed for each contract, allowing the contract itself to be put in place much quicker. But most importantly, by focusing on reducing delivery times, the CREP contracts are able to provide more responsive support to the warfighters. As of March 1998, 228 contracts have been reviewed for CREP application.

1.4.3.3 Aircraft Repair Enhancement Program (AREP)

A complete reengineering of the process for aircraft Programmed Depot Maintenance (PDM) and modification, the AREP effort is to mirror (when practical) the DREP organic repair process for PDM. AREP uses synchronized resource scheduling, dedicated parts support and increased man-loading to increase throughput and ensure schedules are met. Under the new process, each aircraft has all of the required repair activities networked into a master schedule with the critical path clearly identified. Teams have been established at the tail of each aircraft to work supportability issues so they don't impact the aircraft's schedule. These changes have reduced queue time, and increased the velocity at which the aircraft move through the depot. Additionally, AREP has reduced the number of aircraft in work, but applied the same manpower resources to the fewer remaining aircraft. This ensures each aircraft moves through the depot as quickly as possible. By reducing queue time, flow days, and the number of aircraft in work at any given time in the depot, more aircraft have been made available to the warfighters to fly missions. As of March 1998, ten PDM lines have implemented

this process: WR-ALC: F-15, C-141, C-5, C-130, OC-ALC: CKC-135, E-3, B-1, B-52, OO-ALC: C-130, F-16. Flowday reductions range from 38 to 53 percent, with an average of 48 percent. In addition, the number of aircraft in the depots has been reduced by 20 to 29 percent.

AFMC will continue to implement and evolve repair on demand concepts for AREP, CREP and DREP and aggressively pursue Agile Logistic tenets in the engine repair arena.

1.4.4 Marine Corps

1.4.4.1 Precision Logistics (PL)

Precision Logistics refers to how the Marine Corps is going to do its logistics business, both in garrison and when deployed. More specifically, it is a management program aimed at improving the effectiveness and efficiency of the Marine Corps' logistics processes, such as order and ship, and repair. Precision Logistics targets every segment of a process with the goal of getting logistics support to the Marine when it is needed. It improves processes by finding and eliminating the sources of delay, error, and unreliability. It requires logisticians to measure their performance carefully so they can improve support to their customers and, particularly, the field commanders. After the Marine Corps conducted a very successful pilot implementation of Precision Logistics at Camp Pendleton a decision was made to implement it Corps-wide.

Precision Logistics is also a concept, and represents the satisfaction of any specified logistical requirements by the most efficient means possible while maintaining high readiness posture. It identifies priorities and established direction to expeditiously improve Marine Corps logistics processes. The mission of Precision Logistics is to provide responsive and reliable combat logistics support to the Fleet Marine Force (FMF) at home and across the full spectrum of expeditionary operations.

The primary function of the Precision Logistics Program at Headquarters Marine Corps is to identify priorities and provide direction for improving the Marine Corps Logistics processes. This is done to focus resources and facilitate expeditious improvement where it is most critical to the requirements of the Marine Corps. The identification of priorities is based upon strategic, operational, and tactical level requirements. Examples of requirement sources are the National Performance Review, DoD Logistics Strategic Plan, Joint Vision 2010, and doctrinal requirements like Sea-based Logistics. Although the priorities establish a focus for process improvement, efforts are not limited to them. Individual commands can expand on these priorities to meet their own requirements. The following are the current Precision Logistics priorities:

Reduce Logistics Response Time (LRT)

- reduce wholesale and retail order ship time (OST)

- reduce repair cycle time (RCT)
- reshape intermediate level inventory
- focus on Class IX (Repair Parts)
- move to readiness based stockage
- automate asset visibility

Reduce Materiel Costs

- improve stockage criteria of intermediate level inventory
- reduce excesses
- update stockage rules
- use actual OST in inventory calculation
- materiel support management
- reduce procurement cost

Improve Equipment Readiness

- improve equipment reliability, availability, and maintainability
- reduce repair cycle time
- enhance operator and maintainer training and proficiency

The success of Precision Logistics is measured through continuous process improvement. Key indicators of the success are, but not limited to:

- priorities and direction have been defined and promulgated.
- Precision Logistics Program is continuously developing, facilitating, and monitoring initiatives and programs.
- logistics response times (LRT) have been effectively reduced.
- inventory has been reshaped to the optimum levels.
- A state-of-the-art logistics automated information system has been fielded.
- equipment readiness meets operational requirements.
- logistics footprint has been significantly reduced.
- equipment reliability, availability, and maintainability have been significantly improved.
- logistics is expanding the possibilities and capabilities available to the warfighters.

1.4.4.2 Manufacturing Resource Planning (MRP II) Implementation

The Marine Corps Maintenance Centers are in the process of implementing MRP II. This system is a method that will allow for the effective planning of all resources of a re-manufacturing environment. It is made up of a variety of functions, each linked together: business planning, production planning, master production scheduling, material requirements planning, capacity requirements, and the execution support system for capacity and material. Output from this system will allow the Maintenance Center better control and visibility to support overall strategic direction and allow the Marine Corps to maintain a competitive edge for the future.